

22/72 PLUSPAT - (C) QUESTEL-ORBIT

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TI - (A1) A METHOD FOR MAINTAINING A SEQUENCE OF EVENTS FUNCTION DURING
FAILOVER IN A REDUNDANT **MULTIPLE** LAYER SYSTEM

OTI - (A1) METHODE PERMETTANT DE MAINTENIR UNE SEQUENCE D'EVENEMENTS
 FONCTIONS LORS D'UNE DEFAILLANCE D'UN SYSTEME REDONDANT A COUCHES
 MULTIPLES

LA - ENGLISH (ENG)

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PR - US4292393 19930406 [1993US-0042923]

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 (EP); GR (EP); IE (EP); IT (EP); LU (EP); MC (EP); NL (EP); PT (EP);
 SE (EP)

DT - Basic

CT - Cited in the search report

- EP434532(A) (Cat. X); EP351109(A) (Cat. A)

- See also references of EPA 0707722

STG - (A1) Publ. Of int. Appl. With int. Search rep

AB - In a process control system having a redundant multi-layer
 hierarchical **structure**, each **node** of a layer being redundant sequence
 of events inputs are received from field devices by an input/output
 processor (IOP). The IOP is a digital input sequence of events (DISOE)
 IOP, the IOP being the lowest layer of the hierarchical **structure**. The
 IOP interfaces with a controller at the next layer of the hierarchy. A
 method for reliably maintaining a sequence of events function during a
failover of any of the redundant **nodes**, comprising the steps of
 maintaining a log, a circular list, by the local DISOE. The circular
 list is a rolling log of all sequence of events data for a predefined
 time period. When a **failover** occurs, the new primary **commands** an event
 recovery. The event recovery process freezes the log and uses the
 information in the log to recreate the events data. The freeze
 operation inhibits background purge activity for the log thereby
 avoiding the deletion of information past the defined time. New events
 data is still entered in the log. Once the log has been processed the
 freeze operation is negated. The recreated data is transmitted to the
 controller in accordance with a predefined protocol, thereby avoiding
 the loss of any events data as a result of the **failover**.